

Claims

1. A shaped catalyst body comprising from 5 to 85% by weight of copper oxide and the same oxidic support material in the active composition and as binder.

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2. The shaped catalyst body according to claim 1 comprising from 5 to 85% by weight of copper oxide and an oxidic support material, wherein

10 a) the shaped body has a pore volume of > 0.15 ml/g in the pore diameter range from 10 nm to 100 nm and/or

b) the oxidic support material in the shaped body is present both in finely disperse form and also to a proportion by volume of from 1 to 95% by volume of the shaped body in particulate form.

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3. The catalyst according to claim 1 which has the features a) and b).

4. The catalyst according to any of claims 1 to 3, wherein the oxidic support material used is aluminum oxide, titanium oxide, zirconium oxide, silicon oxide, manganese oxide or a mixture thereof.

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5. The catalyst according to any of claims 1 to 4, wherein the oxidic support material is Al_2O_3 .

25 6. The catalyst according to claim 5, wherein the Al_2O_3 is predominantly present as X-ray-amorphous material.

7. The catalyst according to any of claims 1 to 6 which is an extrudate.

30 8. A process for producing a catalyst according to any of claims 1 to 7, wherein an active component comprising from 10 to 98% by weight of copper oxide and an oxidic support material is mixed with a binder comprising the same support material or a precursor thereof and shaped to form shaped bodies.

35 9. The process according to claim 8, wherein from 10 to 98% by weight of the oxidic support material in the catalyst comes from the binder used.

10. The use of a catalyst according to any of claims 1 to 9 for the hydrogenation of carbonyl compounds.

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11. The use of a catalyst according to any of claims 1 to 10 for the gas-phase hydrogenation of maleic anhydride.

Catalyst extrudates based on copper oxide and their use for the hydrogenation of carbonyl compounds

Abstract

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Catalyst in the form of an extrudate which comprises from 5 to 85% by weight of copper oxide and in which the same oxidic support material is present in the active composition and as binder, and the use of the catalyst for the hydrogenation of carbonyl compounds.